

**SUPAIR**

**Skyppeer FR**

User's manual

SUPAIR-VLD  
PARC ALTAÏS  
34 RUE ADRASTÉE  
74650 ANNECY CHAVANOD  
FRANCE

45°54.024'N / 06°04.725' E

Revision index 20131125 EN



Photo / Pilot : Charles CAZAUX

Thank you for your choice of a SKYPPER FR ! We are proud to join you on your journey in our common passion : paragliding.

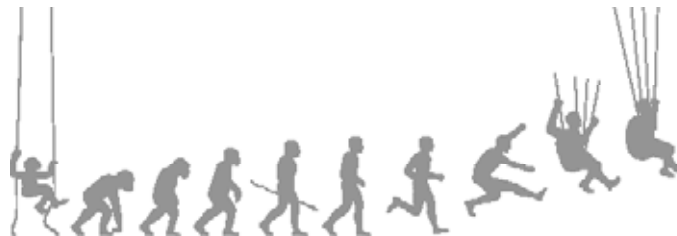
SUP'AIR has been designing, producing, and selling accessories for free flying activities since 1984. By choosing a SUP'AIR product you benefit from almost thirty years of expertise innovation and listening. This is also our philosophy : working endlessly to develop better products and maintain a high quality production in Europe.

We trust that you will find this user's manual comprehensive explicit and hopefully pleasant to read. Please scroll through it carefully !

You will find the most recently updated product information at [www.supair.com](http://www.supair.com). If you have any further questions, feel free to ask one of our retailers. And of course, the entire SUP'AIR team is at your disposal through [info@supair.com](mailto:info@supair.com)

We wish you many safe flights, enjoyable hours , and happy landings

The SUP'AIR team



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Photo : SUP'AIR



Welcome to the SKYPPER FR world: one of performance, comfort, and piloting precision. You now own a fully equipped harness targeting high level competition pilots and long distance records seekers... Perfectly seated in an integrated streamlined profile, you will be able to feel with great accuracy, every movement your wing will send to the SKYPPER FR, during long efficient high speed flights !

After reading this manual, we will recommend checking your harness during a hang-test before flying.

N.B : Three important icons will help you while reading this manual.



Advice



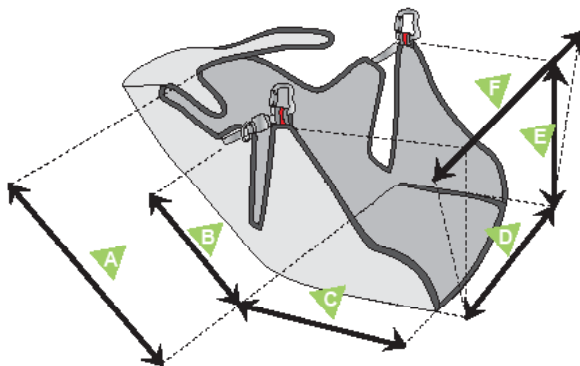
Caution !



Danger !!



- A** Backrest height (cm)
- B** Reclined seating height (cm)
- C** Seat length (cm)
- D** Seat width (cm)
- E** Carabiners height (cm)
- F** Carabiners distance (cm)



Model	SKYPPER FR S	SKYPPER FR M	SKYPPER FR L
Pilot size	160-170	170-180	180-195
Pilot weight (cm)	60-75	70-85	80-100
Harness weight (+ carabiners + speedbar)	7.45	7.57	7.69
Designed for	Paragliding only		
Backrest height (cm)	70	72	75
Seat length (cm)	42	42	42
Seat width (cm)	33	33	33
Carabiners height (cm)	48		
Carabiners distance (cm)	36-46		
Speedbar length ( cm )	78	81	85
Impact damping system : Airbag (Volume)	No		
Impact damping system : Bumpair (Thickness)	Yes- 15 cm		
Certification	EN 1651 - LTF		
Flight : tandem (Pilot- Passenger)	No - No		
Flight : acrobatic flying	No		
Take off : Winch towing	Yes		
Compatibility	Yes		

Choosing your harness size is important. You will find below a measurement chart to help with your selection. Nonetheless we will advise you to try the harness in various sizes during a hang-test at one of our retailers to find your correct fitting size.

For a complete list of our retailers, please click here : [www.supair.com](http://www.supair.com)

Size Weight	1m45	1m50	1m55	1m60	1m65	1m70	1m75	1m80	1m85	1m90	1m95	2m	2m05
50													
55													
60													
65													
70													
75													
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105													
110													

S
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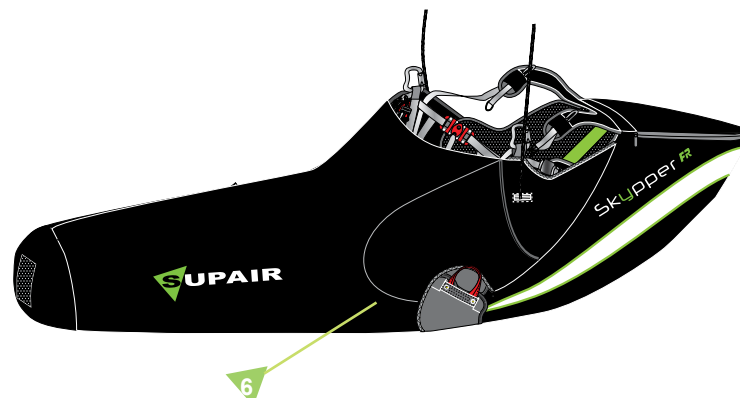
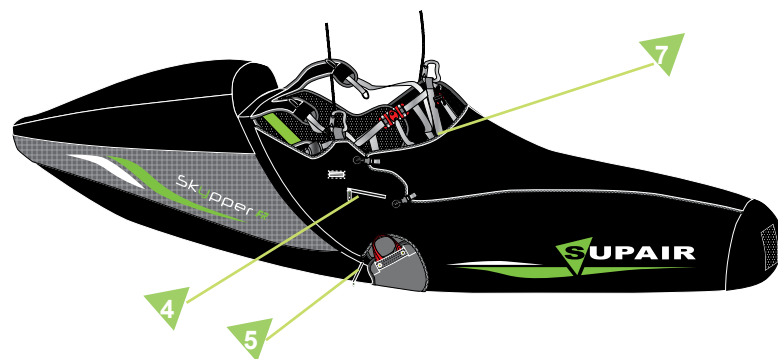
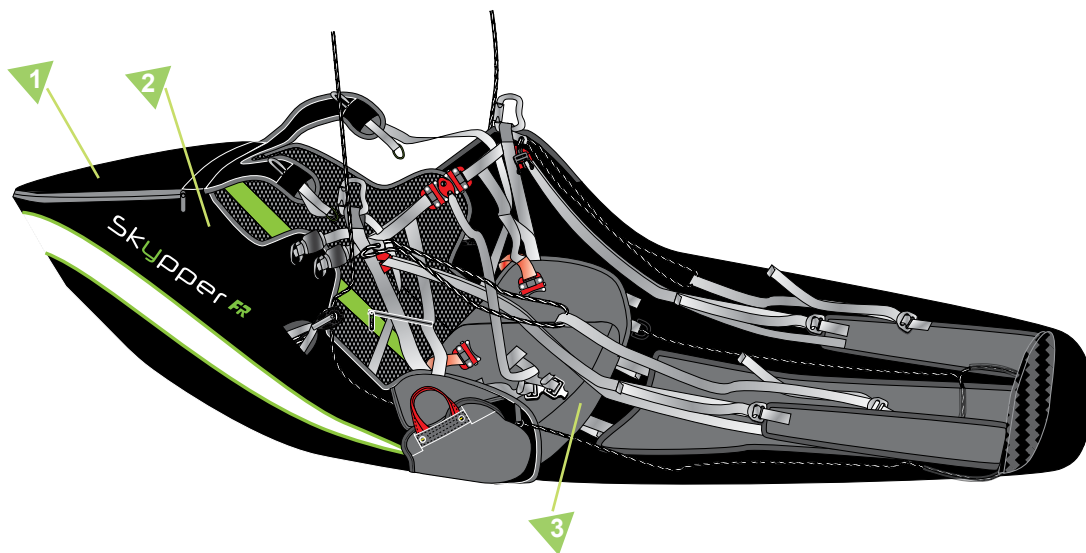


- 1 SKYPPER FR harness.
- 2 1 BUMPAIR 15 cm.
- 3 30 mm self-locking carabiners (x2).
- 4 Reserve parachute handle for pod located beneath the seat ( ref : E2 ) x2.
- 5 Triple stage speedbar for 29 mm Harken pulleys.
- 6 XC carbon fiber seat plate (36x33).
- 7 Speedbag carbon fiber seat plate (SML) oder (XL).
- 8 Removable Cockpit and its instrument support.
- 9 Dyneema reserve parachute risers ( 1 pair ).
- 10 6 mm x 2 Maillon Rapide®.
- 11 O ring ( x4 ).
- 12 Rear profile.

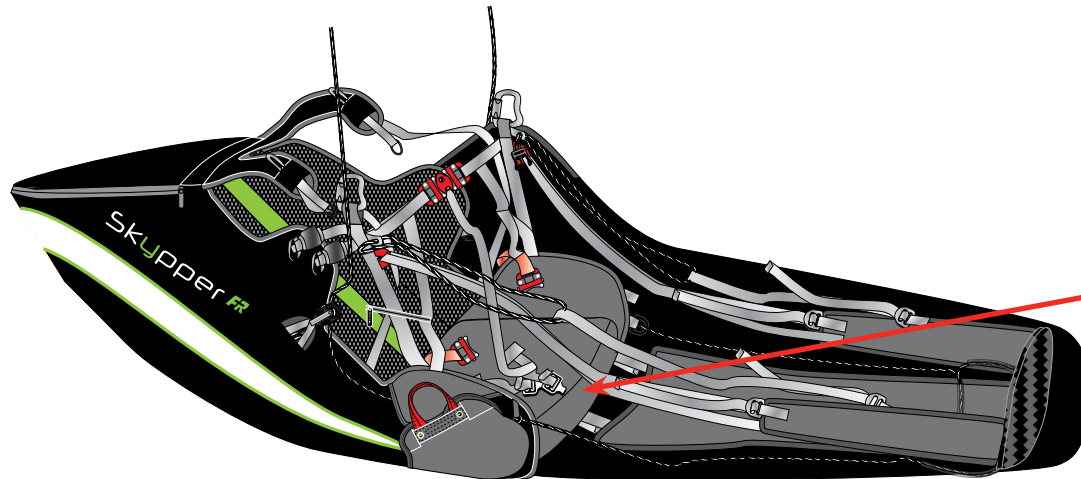
This illustration will help you understanding the user's manual.



- 1 Chest strap quick release buckle.
- 2 Safe-T-strap.
- 3 Leg strap quick release buckle.
- 4 Chest strap adjustment.
- 5 Backrest tilt adjustment.
- 6 Lower back support.
- 7 Shoulder straps adjustment.
- 8 Dorsal storage pocket.
- 9 Sliding guide system diagram.
- 10 Adjusting the SpeedBag angle.
- 11 Adjusting the Speedbag length.
- 12 Foot-plate.
- 13 Speedbag closing buckles.
- 14 Reserve parachute handle;
- 15 Reserve parachute container;
- 16 Harken® pulley.
- 17 Rear profile.

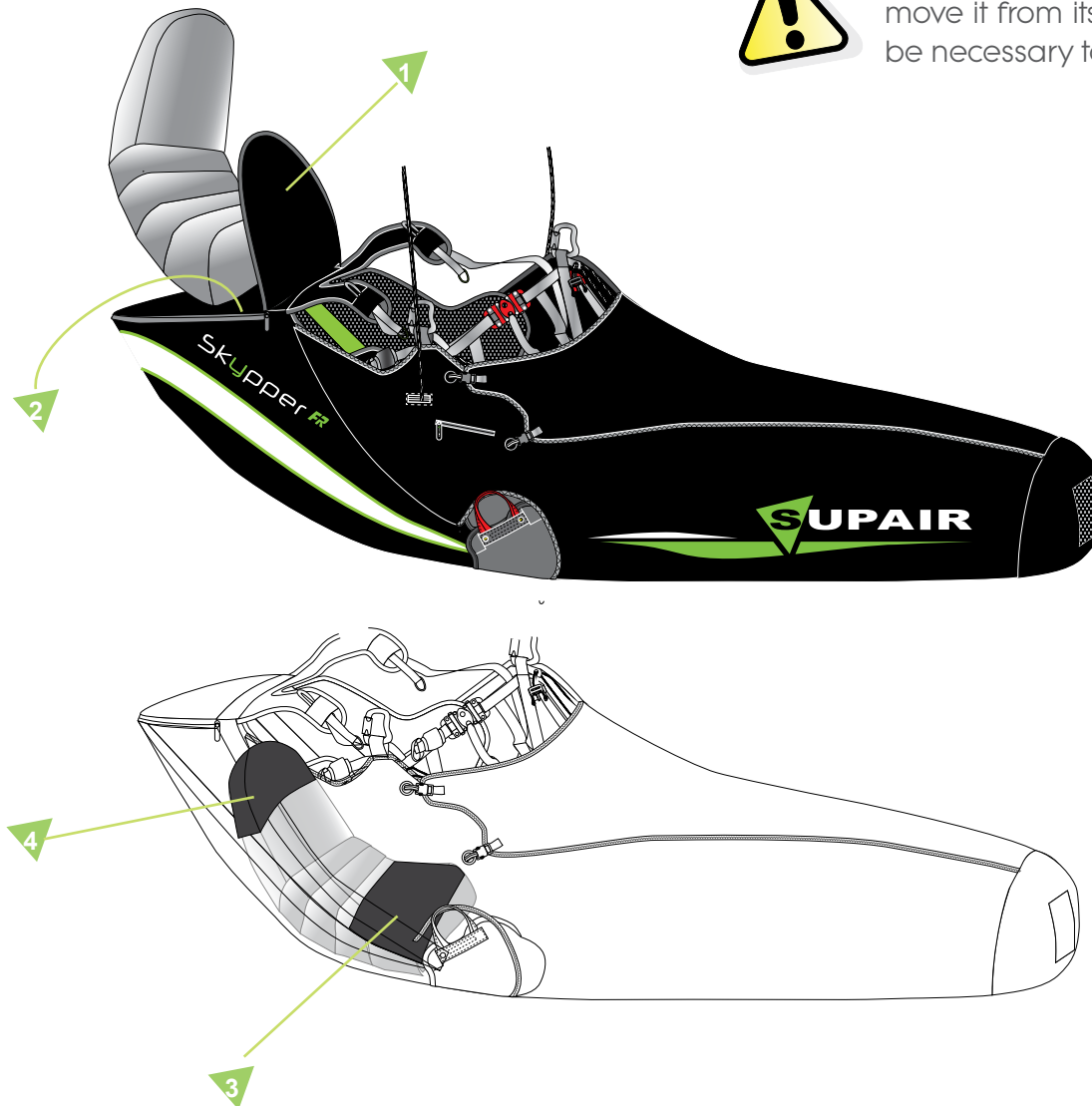


- 1 Dorsal storage pocket.
- 2 Inner water pocket.
- 3 Inner (10 liter) water ballast pocket.
- 4 Side storage pocket.
- 5 Ballast dumping valve passage.
- 6 Drag-Chute compartment.
- 7 Cockpit.





The Bumpair is installed in place permanently. There is no need to remove it from its location except in case of severe impact, when it would be necessary to inspect it for possible damage.



- 1 Open the zipped pocket.
- 2 Open the internal zip ( green ) of the « U » shaped pocket.  
  
Push the Bumpair forward while checking the following points :
- 3 The Bumpair must be pushed all the way in, sandwiched beneath the seating area and the supporting wall stitched along the green seam marker. The Bumpair will set itself in this compartment, resting against the reserve parachute pockets.
- 4 The upper Bumpair section must be inserted inside the « hood » beneath the backrest straps.

The cockpit is installed on the right side of the harness and Speedbag. When entering and seating inside the harness, the Cockpit automatically finds its correct location and positioning, for optimal and direct instrument visibility. Easily removable, it is nevertheless equipped with a detachable velcroed supporting instrument platform to carry away to briefings if needed.



Installing the cockpit in the compartment inside the Speedbag.



When ready to seat inside the harness after locking the plastic leg and chest straps buckles, close the plastic Speedbag buckles, then fold the Velcro strap over the Cockpit.

For better instrument visibility and need to straighten the Cockpit, it can simply be done by raising the velcro central location.





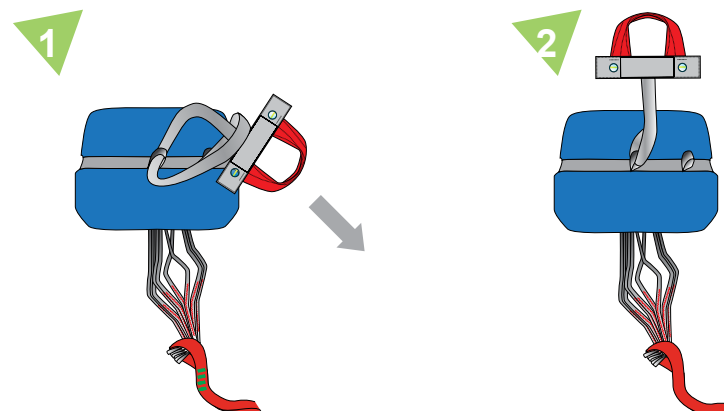
Thank you for carefully reading the following! We advise you to have the initial rescue parachute installation done by someone knowledgeable with the process.

## Reserve parachute pocket : characteristics

- 2 side pockets with 4 flaps. One to the right and one to the left, symetrically located.
- Cable locking system.
- Volume : 3 to 8 liters.
- Compatible with the SUPAIR LIGHT or X-TRALITE reserve parachutes as well other solo models.

## Handle to POD connection.

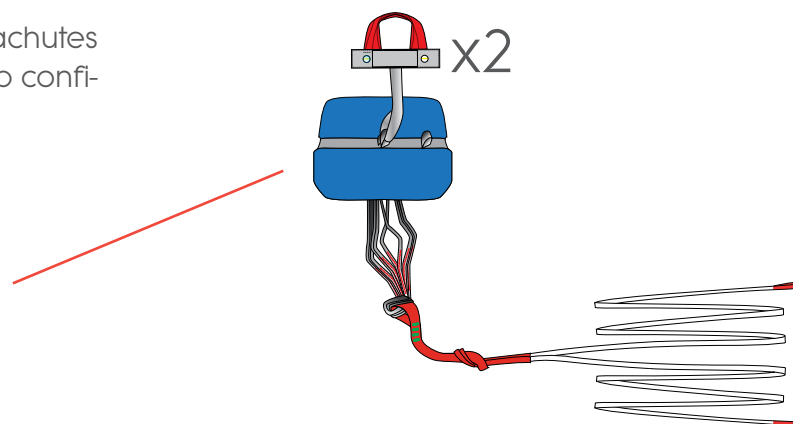
1. Attach the handle to the POD central webbing passage and make a loop to loop configuration.
2. Tighten the loop to loop connection, then check the overall integrity of the assembly.



## Connecting the Dyneema risers to the reserve parachute.

Connecting each of the 2 reserve parachutes Dyneema riser sets with a loop to loop configuration.

The handle must be connected to the central POD loop.



## Installing the reserve parachutes in their respective pockets.

Reserve risers beneath the POD, guided through the sleeve to the shoulders. The shoulder connection should preferably be made last.

POD, handle pointing upward.

Extendable flaps.



Right handed pilots will install and connect the left reserve parachute first. The reverse will apply to left handed pilots.

Insert the reserve parachute in its receiving pocket with the flaps extended outward. The handle must be pointing upward.

Push the reserve parachute risers through the risers guiding sleeve ( the risers must be positioned behind the parachute ).



Thank you for carefully reading the following! We advise you to have the initial rescue parachute installation done by someone knowledgeable with the process.



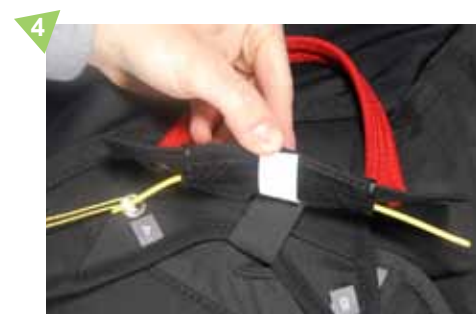
Push the cord through the elasticated loop 1.



Push the cord through grommet 2.



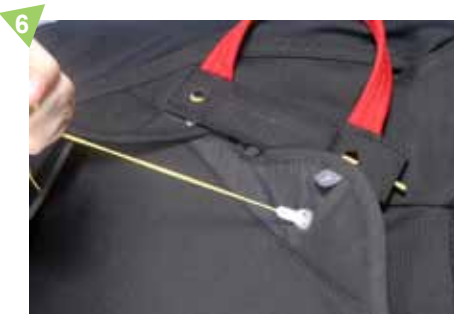
Push the cord through grommet 3.



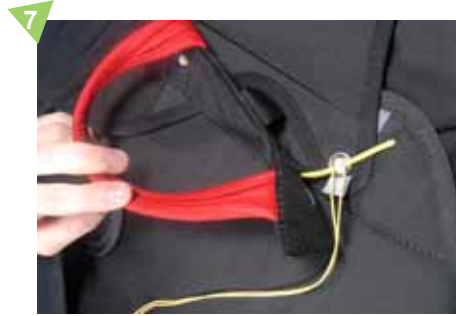
Push the cord through grommet 4, and insert the yellow handle cable in the loop. Carefully remove the cord, and tuck away the end of the handle under the outer end pockets.



Still using the cord, push the elasticated loop 5 through grommet 6.



Push the cord through grommet 7.



Push cord through grommet 8. Insert the yellow handle cable in the loop. Carefully remove the cord.



Tuck away the end of the handle under the outer end pockets.



Rigid internal flaps.



Two rigid flaps are to be closed on the inside of the Speedbag.



Inner rigid flaps.

Neoprene lining.

Close the two rigid flaps between the stiffened panel and the neoprene lining.

## Rescue parachute riser connection.

Each Dyneema riser connects to the harness via a Maillon Rapides®, and is kept in place with a toric joint.



Connecting the left, then right reserve parachutes. The risers are connected to the same Maillons Rapides® joining the right and left reserve parachutes.

Connecting the left reserve parachute risers.

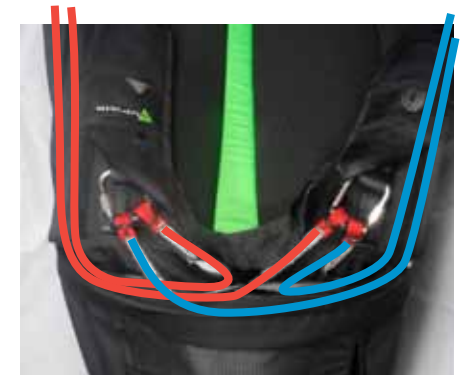


Connecting the right reserve parachute risers over the left reserve parachute risers.



Left reserve parachute risers.

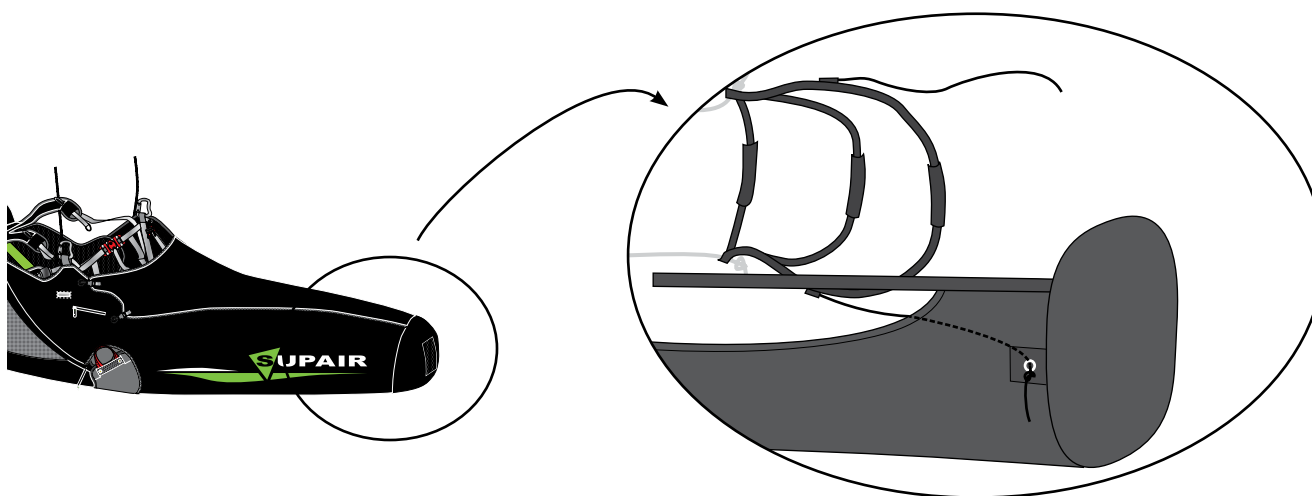
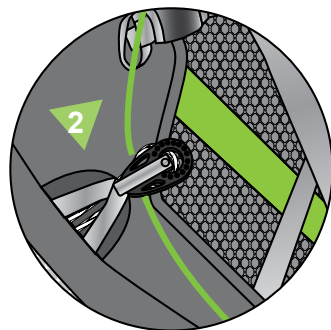
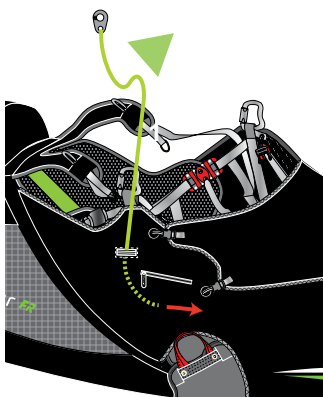
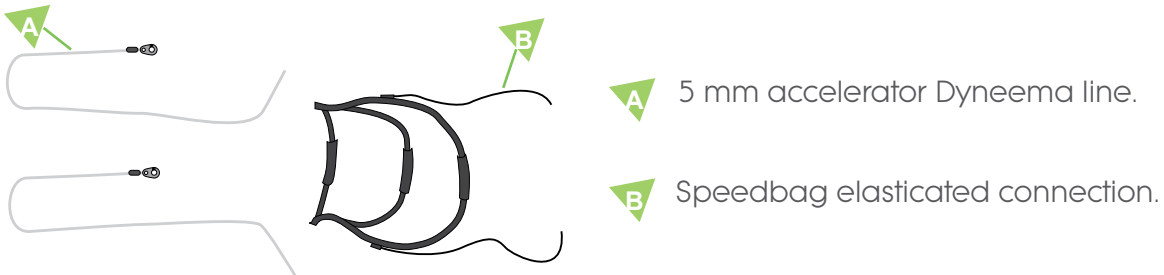
Right reserve parachute risers.



You can only install one reserve parachute to the right or the left for a total of 2 parachutes between the two containers.



Once the installation has been completed, gently pull on the reserve parachute handle to check and validate the proper extraction sequence (POD + handle). Repeat installation procedure afterward.





Place the pouch inside the receptacle located inside the dorsal storage pocket. Push the drinking tube through the green zip accessing the Bumpair.



Push the drinking tube through the guiding zip located underneath the reserve parachute risers sleeve.



Close the risers guide flaps while placing the drinking tube between the velcros.

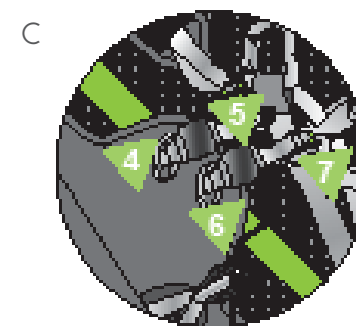
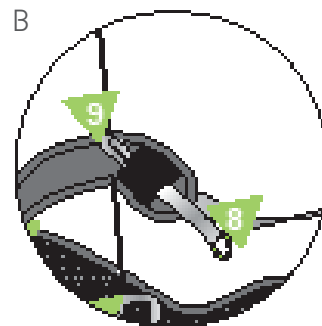
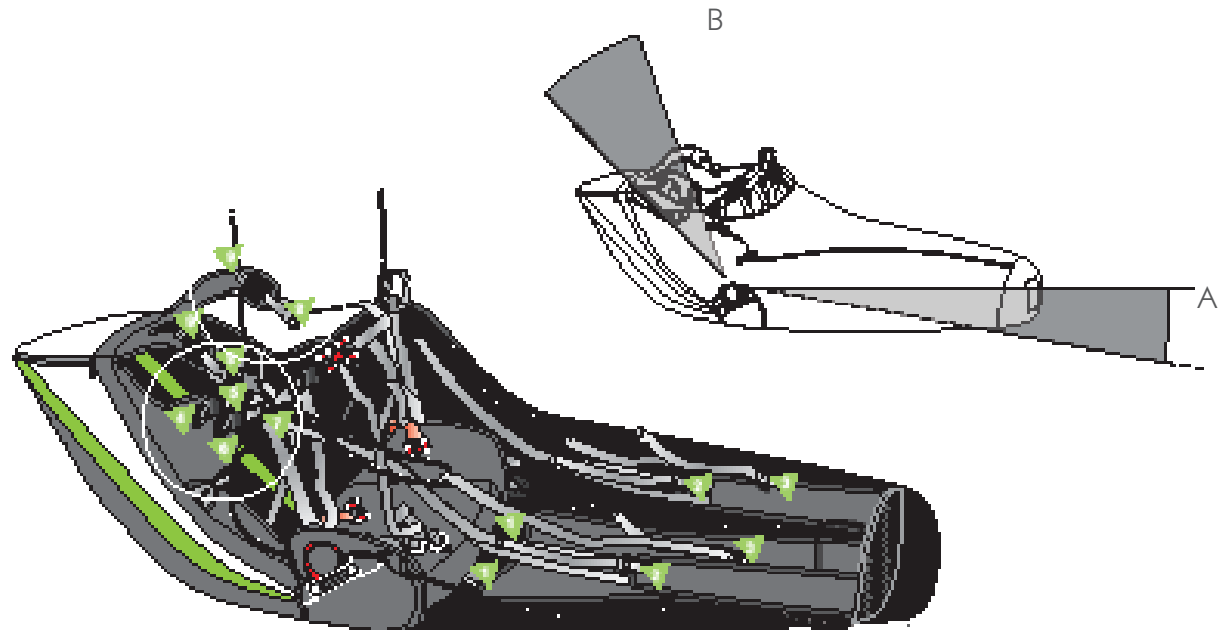


Overall view of the shoulder straps with the drinking tube.



Adjusting the harness prior takeoff is extremely important.

- 1 Speedbag adjustment buckles beneath the seat.
- 2 Speedbag lateral adjustment buckles.
- 3 Speedbag lateral tension adjustment strap buckles.
- 4 Backrest angle adjustment loosening strap.
- 5 Tightening loop-cord ( backrest angle adjustment ).
- 6 Lumbar loosening adjustment support strap.
- 7 Tightening loop-cord ( lumbar support ).
- 8 Shoulder tightening loop-cord ( shoulder strap ).
- 9 Shoulder loosening strap.



## A Adjusting the Speedbag angle and length.

Using the two lateral buckles and the two buckles underneath the seat, modify the Speedbag angle around the horizontal axis.

## B Adjusting the backrest angle.

Modify the angle by pulling on the cord ( to become closer to the vertical axis ), or the black strap ( to pull away from the vertical axis ).

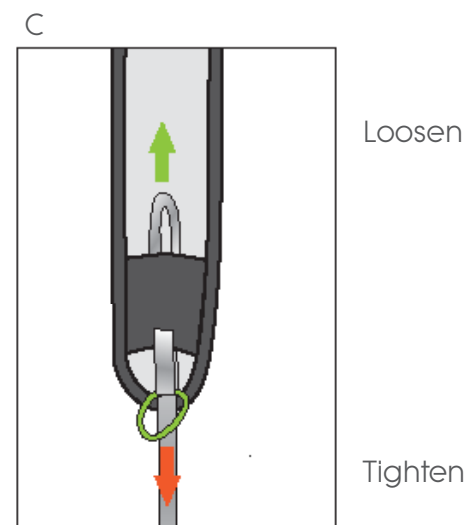
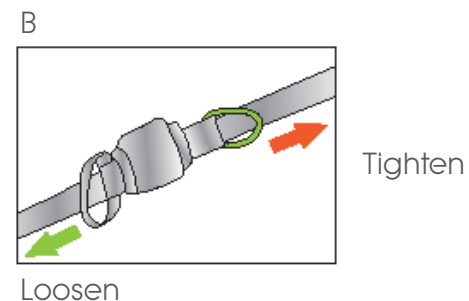
The lumbar support can be tightened/increased or loosened with the strap or the loop-cord.



## C Adjusting the shoulder straps.

Tighten the shoulder straps by pulling the the loop-cord forward. Loosen by pulling the tubular strap rearward.

Resting against the shoulder straps enhances comfort ; the adjustment must be precisely done.



The SKYPPER is a XC and competition harness. Efficient and stable, it transmits precisely the wing's output to the pilot.

Keep in mind that we want to see you practice this specialty with peace of mind and for as long as possible. The best gear will not protect you against over confidence or a cascade of mishaps.



## Pre-Flight check.

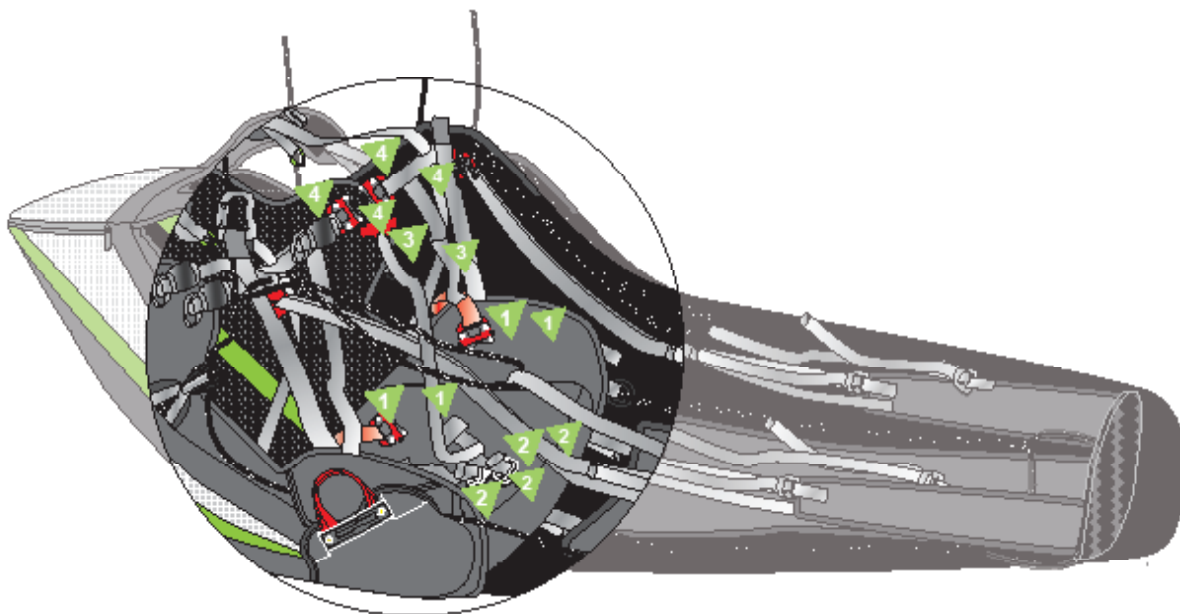


- Check that the harness and the carabiners are not damaged.
- Check thoroughly that the rescue handle cable has not come out of the snapper flaps
- Check that your personal settings have not been modified.
- Check that all zippers and buckles are properly closed.
- Check that the speed-bar is properly adjusted and connected to the wing ( refer to page 20 ).
- Check that no rigging line or other object comes in contact with the rescue parachute handle.

After a thorough weather conditions analysis, when the decision to fly has been taken, put your harness on :



- Carefully close and lock the leg-straps, Safe-T strap, and chest strap buckles.



- 1** Thigh strap quick-release buckles (female).
- 2** Thigh strap quick-release buckles (male).
- 3** Chest strap quick-release buckles (female).
- 4** Safe-T-Bar.

## Take-off

After being properly connected, lock the Speedbag's left buckle (1) fastened to a line, then connect the Cockpit supporting velcro (2), and lock the Speedbag's second buckle (3) to the right.



Keep an upright posture while taking off ( do not try to immediately seat in your harness ) distance yourself from the ground first, then backpedal to reach and grab the Speedbag. Push yourself all the way into the harness by using the foot-rest to reach a comfortable seating posture.



Note that it is easier to backpedal and grab the Speedbag while standing upright inside the harness, and inversely, more difficult when already seated.

Do not let go your toggles from your hands when flying close to the terrain.



## In flight

Once in flight, the SKYPPER FR's behavior is intuitive and precis.



Please set the distance between the two carabiners according to aerology conditions and to the wing manufacturer's recommendations.



Tightening provides more stability but less harness piloting efficiency. Beware of the increased risk of riser twisting. On the contrary loosening the strap provides more efficiency but can be dangerous in turbulent aerology (increased risk of falling towards the collapsed side of your glider).

## Speed-bar use

We recommend a careful use of the speed-bar due to the increased risk a possible frontal collapse. Please carefully read your glider's operation manual.



The SKYPER FR accelerator is equipped with three stages (3 bars). The first bar rides beneath the ballast pocket. When the ballast pocket is empty, be certain to tighten it and decrease its volume to enable the accelerator to operate smoothly.

When this pocket is empty: the ballast pouch must be fully tightened to diminish its volume, and enable the accelerator to operate smoothly.



## Landing

Approaching landing, take your legs out of the Speedbag early enough. Straighten your body, adopt an upright posture and be ready to run to dissipate the horizontal speed to a stop.



Do not land whilst still seated position, this is dangerous.

## Using the reserve parachute.

We strongly advise you to frequently check the reserve parachute handle location to lowering your right hand following the risers. This movement should become second nature to maximize your chance of rapid and successful extractions in case of an emergency.



Evaluate your height over the ground. If you have a lot of altitude it may be better to attempt a wing recovery to normal flight. If in doubt then deploy your reserve parachute.

Deploying a rescue parachute should only be done as an emergency.



With a strong, lateral and then vertical tug pull the handle towards you and then throw the whole parachute (including the bag and handle) as hard as possible away from the harness and on an unobstructed trajectory. As soon as the parachute deploys, haul down the glider by pulling as symmetrically as possible on the risers (C or D) lines.

Be prepared to land by adopting an upright position.

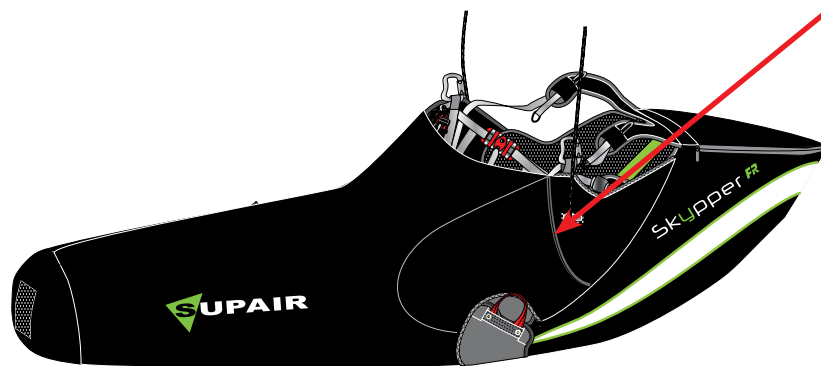


The second reserve parachute must only be deployed when subsequent problems occur with the main and first rescue system sequence.

## Using the Drag-Chute.

The SKYPPER FR was designed to use a Drag-Chute.

If the Drag-Chute was to be used in flight, it can be found stowed away inside the left pocket along the Speedbag. This pocket is large and open enough for an easy chute extraction.



## Washing and harness maintenance.

It is a good idea to wash your harness from time to time. We recommend using a soft solvent (such as soap), a brush and rinse thoroughly.

DO NOT use chemicals such as aggressive detergents or strong solvents as they may deteriorate the webbing, stitching and harness fabrics. The zip fasteners should be lubricated from time to time, using a silicon spray only.

## Storage and transport.

When not using your harness, store it inside your paragliding rucksack, in a dry, cool and clean place, protected from UV exposure. If your harness is wet, dry it thoroughly before storing.

During transport, protect the harness from any mechanical or UV deterioration (use a bag). Avoid long transports in wet or humid conditions.

## Product longevity.

Independently from the pre-flight checks, you must open and unfold your rescue parachute once every 6 months.

Once every 2 years, you need to perform a complete harness check :

- webbings (no wear, tear or material unraveling, no unwanted folds).



The threads making the webbing and fabrics used in the ACRO3 have been selected to offer the best possible light weight to longevity ratio. Nonetheless, in some conditions, after long term exposure to UV and/or significant abrasion or exposure to chemicals, it is compulsory to have your harness's integrity checked at a certified repair centre. Your safety depends on it.



These carabiners must never be used for anything else than paragliding (not for climbing, nor towing, etc.).

Carabiners must be replaced by new ones every five ( 5 ) years by identical models or models recommended by the manufacturer ( SUPAIR ).

## Repair

In spite of using the highest quality materials, it is possible for your harness to eventually deteriorate through general use. If showing any signs of significant wear and tear, you should check it and have it repaired at a certified repair centre if necessary.



SUP'AIR also offers the possibility for its products to be repaired beyond the end of the warranty period. Please contact us either by telephone or by E-mail [sav@supair.com](mailto:sav@supair.com) in order to receive a quotation.

## Materials

### Fabrics

DYNEEMA® RIPSTOP  
CORDURA®  
CORDURA® RIPSTOP

### Under the seat parachute risers

Dyneema® (1350 N)

### Speedbag

LYCRA

### Webbings

Polyamide 20 mm (500 DaN)  
Polyester 25 mm (1250 DaN)

## Recycling

All our materials are selected for their technical and environmentally friendly characteristics. None of thre components found in them will harm the environment, and most are recyclable.

If you estimate that your harness has reached the end of its lifespan, you can then separate the plastic from the metallic parts and apply up-to-date sorting rules in effect in your community. As for the fabric parts, we will advise you to contact your local specialized recycling center(s).



## Warranty

SUP'AIR takes the greatest care in the design and production of its product line, hence, offers a five (5) years limited warranty from the purchase date against any manufacturing defect or design issues occurring during normal use. Any damage or degradation resulting from incorrect or abusive use, abnormal exposure to aggressive factors, including, but not limited to; high temperature, intense sun exposure, high humidity etc., will invalidate this warranty

## Disclaimer



Paragliding is an activity requiring, skills, specific knowledge and sound judgement. Be safe by learning in certified schools, subscribe and obtain an adequate insurance policy as well as a flying license while always making sure your flying skills are up to the task in various weather flying conditions. SUP'AIR cannot be held responsible for your paragliding decisions or activities.



This SUP'AIR product has been designed exclusively for paragliding. Any other activity such as skydiving or BASE jumping is absolutely forbidden.

## Pilot's gear



It is essential to wear a helmet, suitable boots and clothing. Carrying a reserve parachute suitable for your weight and correctly connected to your harness is also very important.

This page will help you to record all the life stages of your ACRO3 harness.

Serial number :

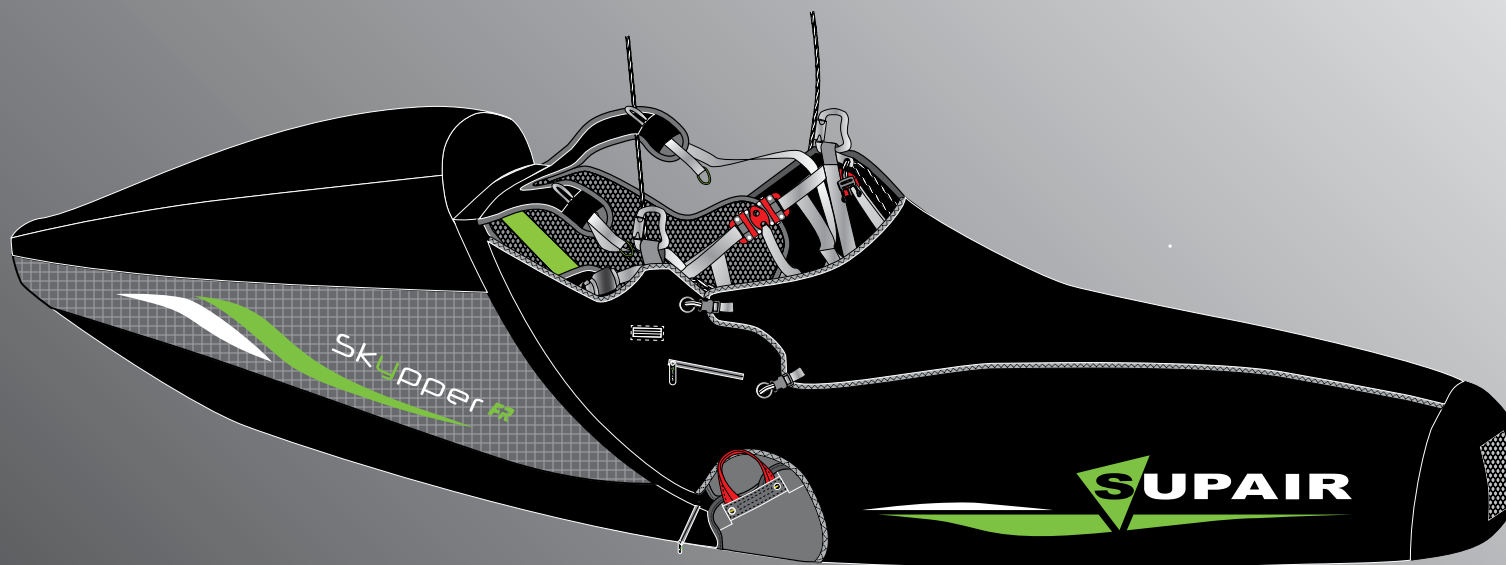
Purchase date	
Owner's name	
Name and stamp of the shop	

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Date	
Workshop's name/ Buyer's name	

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Date	
Workshop's name/ Buyer's name	



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